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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/404,940	09/23/1999	KENTARO TOYAMA	1018.034US1	8935

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LAW OFFICES OF MICHAEL DRYJA  
704 228TH AVENUE NE  
PMB 694  
SAMMAMISH, WA 98074

EXAMINER

BOOKER, KELVIN E

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 03/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

09/404,940 ✓

Applicant(s)

TOYAMA, KENTARO

Examiner

Kelvin E Booker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Detail Office Action*.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-8, 13-21 and 25-29** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claims 1 and 19** provide for the use of *training a classifier and outputting a classifier*, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

**Claims 13 and 25** provide for the use *generating and outputting a recommendation*, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. **Claims 1, 2, 6-12 and 19-24** are rejected under 35 U.S.C. 102(e) as being anticipated by Burges, U.S. Patent No. 6,112,195.

**As per claim 1**, Burges teaches of a computer-implemented method comprising:

A. inputting a training set including a plurality of images and a corresponding plurality of aesthetic scores for the images (see figure 2; and column 1, lines 19-25 and lines 53-63: inputting images for training and classification); and

B. training a classifier based on the training set and outputting the classifier (see column 1, lines 19-35: training a classifier).

**As per claim 2**, Burges teaches of a method further comprising:

A. inputting an image into the classifier (see figure 2; and column 1, lines 19-35: inputting images); and

B. generating an aesthetic score for the image based on the classifier and outputting the aesthetic score for the image (see column 1, lines 22-25: generating scores relative to image attributes).

**As per claim 6**, Burges teaches of a method wherein training a classifier comprises training one of a Bayesian classifier, a Support Vector Machine (SVM) classifier, a neural net classifier, and a decision tree classifier (see column 1, lines 19-25: using SVM classifier).

**As per claim 7**, Burges teaches of a method wherein training a classifier comprises utilizing feature selection to correlate at least one image feature of the images with their corresponding aesthetic scores (see column 1, lines 25-35: using image features to distinguish object).

**As per claim 8**, Burges teaches of a method wherein utilizing feature selection to correlate at least one image feature comprises utilizing feature selection to correlate at least one image feature selected from the group essentially consisting of: color presence, color distribution, geometrical quantities of segmented image parts, coefficients of image transformations, and higher-level image representations (see column 1, lines 25-35).

**As per claim 9**, Burges teaches of a computer-implemented method comprising:

A. inputting an image (see figure 2; and column 1, lines 19-25 and lines 53-63: inputting images); and

B. generating an aesthetic score for the image by utilizing a classifier previously trained on a training set including a plurality of images and a corresponding plurality of aesthetic scores for the images and outputting the image (see column 1, lines 19-35: training a classifier).

**As per claim 10**, Burges teaches of a method wherein generating an aesthetic score comprises generating an aesthetic score based on at least one image feature of the image (see column 1, lines 25-35: using image features to distinguish object).

**As per claim 11**, Burges teaches of a method wherein generating an aesthetic score based on at least one image feature of the image comprises generating an aesthetic score based on at least one image feature selected from the group essentially consisting of: color presence, color distribution, geometrical quantities of segmented image parts, coefficients of image transformations, and higher-level image representations. (see column 1, lines 25-35).

**As per claim 12**, Burges teaches of a method wherein utilizing a classifier comprises utilizing one of a Bayesian classifier, a Support Vector Machine (SVM) classifier, a neural net classifier, and a decision tree classifier (see column 1, lines 19-25).

**As per claim 19**, the same limitations are subjected to in claim 1, therefore the same rejections apply (see claim 1 above).

**As per claims 20-21**, the same limitations are subjected to in claims 6-7, respectively, therefore the same rejections apply (see claims 6-7 above).

**As per claims 22-23**, the same limitations are subjected to in claims 9-10, respectively, therefore the same rejections apply (see claims 9-10 above).

**As per claims 24**, the same limitations are subjected to in claims 12-16, respectively, therefore the same rejections apply (see claims 12 above).

5. **Claims 3-5, 13-18 and 25-29** stand rejected. However, the claims would be deemed objected to as being dependent upon rejected base claims if the 35 U.S.C. 112, second paragraph

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issues are resolved, in which case, the aforementioned claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. An inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Booker whose telephone number is (703) 308-4088. The examiner can normally be reached on Monday-Friday from 7:00 AM-5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (703) 305-9707. The fax number for the organization where this application or proceeding is assigned is (703) 746-7239.

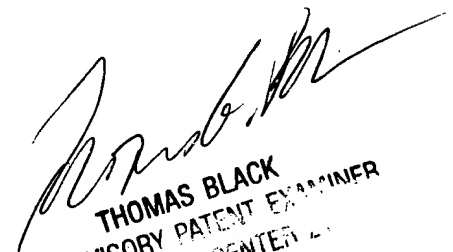
An inquiry of a general nature or relating to the status of this application proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



**K.E.B.**

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**February 6, 2002**



**THOMAS BLACK**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER**